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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/692,152

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Hiroyuki Uno

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EXAMINER

KIM, WESLEY LEO

ART UNIT	PAPER NUMBER
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2617

MAIL DATE	DELIVERY MODE
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05/17/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/692,152

Applicant(s)

UNO, HIROYUKI

Examiner

Wesley L. Kim

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17:2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/28/07 has been entered.

Response to Amendment

This Office Action is in response to Amendment filed 2/28/07.

- Claim 10 is newly added.
- Claims 1-10 are pending in the current Office Action.

Response to Arguments

Applicant's arguments filed 2/28/07 have been fully considered but they are not persuasive.

- Applicant argues that the happy tone at a handset, as indicated in the text in the enclosure labeled reference number 311, (Fig.3), and the sad tone at a handset, as indicated in the text in the enclosure labeled reference number 319, (Fig.3), are not the result of one valid or invalid key input, as claimed in independent claims 1, 5, and 9, but rather reflect the conclusion of a successful or unsuccessful registration process, (column 9, lines 9-17, 22-25).

The examiner respectfully disagrees. The claims recite that there is a means for notifying the user of a valid input or an invalid input with the use of two different patterns. Where a first pattern indicates a valid input and the second pattern indicates an invalid input.

Nealon clearly teaches that when a valid key is pressed (Fig.3;310-311) then happy sound tone is used to notify the user that a valid key has been pressed, and when the user presses an invalid key then a sad sound tone is used to notify the user that an invalid key has been pressed (Fig.3;318-319). The press of a button may result in successful or unsuccessful registration process, however it is clear that a valid button must be pressed to cause a first pattern be activated and then perform registration, also pressing an invalid button causes a second pattern to be activated which then results in no registration. So the Nealon reference, in view of the examiners interpretation in combination with the additional references cited in the rejections below teaches all the limitations as recited in the claims.

Information Disclosure Statement

In response to the arguments made with respect to the Information Disclosure Statements (IDS) submitted on June 19, 2006 and September 14, 2006, the examiner withdraws the request for an English translation of the foreign references and has considered all the references. Also, the IDS submitted on 11/30/06 has been considered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nealon et al (U.S. Patent 5463659) in view of Kim (U.S. Patent 6882860 B1).

Regarding Claims 1, 5, and 9, Nealon teaches key inputting means

(Fig.2;260, keypad);

key inputting means including a plurality of keys for accepting an input of any of said keys by a user of said portable telephone set (Col.5;33-37 and Fig.2;260);

key input discrimination means for discriminating whether the input of any one of said keys is valid or invalid (Fig.3;310-Fig.3;311 and Fig.3;318-Fig.3;319, the phone determines if the key input is valid or invalid so there is a key input discrimination means for discriminating whether the key inputting operation of said key inputting means is valid or invalid);

key input validity notification means operable when said key input discrimination means discriminates that the input of any one of said keys is valid for causing said call termination notification means to notify the user of the validity of the input of said any one of said keys with a first pattern set in advance (Fig.3;310-Fig.3;311, happy tone); said first pattern being different from a function performed by the input of said any one of said keys (Fig.3;310-Fig.3;311, a happy tone is different from the key inputting operation); and

key input invalidity notification means operable when said key input discrimination means discriminates that the input of any one of said keys is invalid for causing said call termination notification means to notify the user of the invalidity of the input of said any one of said keys with a second pattern set in advance and different from the first pattern (Fig.3;318-Fig.3;319, sad tone), however, Nealon **does not expressly teach** call termination notification means and said call termination notification means functioning to notify the user of termination of a telephone call in addition to functioning to notify the user of the validity or invalidity of the input of any one of said keys.

Kim teaches a call termination notification means (Col.2;67-Col.3;3 and Fig.1;117, a buzzer). Nealon must have a buzzer to produce the valid/invalid tone (Fig.3;310-Fig.3;311 and Fig.3;318-Fig.3;319) and to one of ordinary skill in the art, it is obvious that the said call termination notification means functions to notify the user of termination of a telephone call in addition to functioning to notify the user of the validity or invalidity of the input of any one of said keys.

To one of ordinary skill in the art, it would have been obvious to modify Nealon with Kim such that the call termination notification means and said call termination notification means functions to notify the user of termination of a telephone call in addition to functioning to notify the user of the validity or invalidity of the input of any one of said keys, to provide a method of implementing the use of a single buzzer to produce all sounds, to keep the size of the phone as small as possible.

Regarding Claims 2 and 6, Kim teaches said call termination notification means includes a speaker or LCD display (Fig.1;117 and Col.2;65-67).

Regarding Claims 3 and 7, the combination as discussed above teach all the limitations as recited in claims 2 and 6, however the combination is silent on the liquid crystal display device of said call termination notification means is rendered operative when said portable telephone set is used in a mode wherein no sound is generated from said foldable telephone set.

Kim teaches that an LCD display displays different call termination displays (Col.2;65-67). To one of ordinary skill in the art, it is obvious that if a phone is in a mode where no sound is generated from the portable telephone set, another means of alerting the user must be used, i.e. vibration, or various displays via LCD display.

Regarding Claims 4 and 8, Nealon teaches a memory (Col.6;9-12) and said key input discrimination means using the key allocation information to discriminate whether the input of any one of said keys is valid or invalid (Fig.3;310-311 and Fig.318, if keys 1-3 are pressed then a happy tone will sound at the handset, and if any other button is pressed then a sad tone will sound).

2. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nealon et al (U.S. Patent 5463659) in view of Kim (U.S. Patent 6882860 B1) and Serrano et al (U.S. Patent 5640441).

Regarding Claim 10, Nealon teaches key inputting means (Fig.2;260, keypad); key inputting means including a plurality of keys for accepting an input of any of said keys by a user of said portable telephone set (Col.5;33-37 and

Fig.2;260); key input discrimination means for discriminating whether the input of any one of said keys is valid or invalid (Fig.3;310-Fig.3;311 and Fig.3;318-Fig.3;319, the phone determines if the key input is valid or invalid so there is a key input discrimination means for discriminating whether the key inputting operation of said key inputting means is valid or invalid); key input validity notification means operable when said key input discrimination means discriminates that the input of any one of said keys is valid for causing said call termination notification means to notify the user of the validity of the input of said any one of said keys with a first pattern set in advance (Fig.3;310-Fig.3;311, happy tone); said first pattern being different from a function performed by the input of said any one of said keys (Fig.3;310-Fig.3;311, a happy tone is different from the key inputting operation); and key input invalidity notification means operable when said key input discrimination means discriminates that the input of any one of said keys is invalid for causing said call termination notification means to notify the user of the invalidity of the input of said any one of said keys with a second pattern set in advance and different from the first pattern (Fig.3;318-Fig.3;319, sad tone), and Nealon teaches a memory (Col.6;9-12) and said key input discrimination means using the key allocation information to discriminate whether the input of any one of said keys is valid or invalid (Fig.3;310-311 and Fig.318, if keys 1-3 are pressed then a happy tone will sound at the handset, and if any other button is pressed then a sad tone will sound) however, Nealon **does not expressly teach** call termination notification means and said call termination notification means functioning to notify the user of termination of a

telephone call in addition to functioning to notify the user of the validity or invalidity of the input of any one of said keys; when the portable telephone set is used in a mode wherein no sound is generated from said portable telephone set, if the key input discrimination means discriminates that the key inputting operation is valid, then at least one of a first vibration pattern and a first color variation pattern is generated, and if the key input discrimination means discriminates that the key inputting operation is invalid, then at least one of a second vibration pattern and a second color variation pattern is generated.

Kim teaches a call termination notification means (Col.2;67-Col.3;3 and Fig.1;117, a buzzer). Nealon must have at least a buzzer to produce the valid/invalid tone (Fig.3;310-Fig.3;311 and Fig.3;318-Fig.3;319) and to one of ordinary skill in the art, it is obvious that the said call termination notification means functions to notify the user of termination of a telephone call in addition to functioning to notify the user of the validity or invalidity of the input of any one of said keys.

Kim already teaches that if the key input discrimination means discriminates that the key inputting operation is valid, then a first pattern, and if the key input discrimination means discriminates that the key inputting operation is invalid, then a second pattern is generated and Serrano further teaches when a portable telephone set is used in a mode wherein no sound is generated from said portable telephone (i.e. silent mode), any one of a color variation pattern or vibration pattern maybe used to alert the user (Col.2;60-62, silent alarm, i.e. vibrator or a flashing light) of a call termination, to one of ordinary skill in the art, it is obvious that the vibrator and

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flashing lights may be used in place of the sound tones to alert the user of a condition of the mobile station such that the combination of Kim and Serrano would lead to, at least one of a first vibration pattern and a first color variation pattern being generated if the key input discrimination means discriminates that the key inputting operation is valid, and if the key input discrimination means discriminates that the key inputting operation is invalid, then at least one of a second vibration pattern and a second color variation pattern is generated.

To one of ordinary skill in the art, it would have been obvious to modify Nealon with Kim and Serrano such that the call termination notification means and said call termination notification means functions to notify the user of termination of a telephone call in addition to functioning to notify the user of the validity or invalidity of the input of any one of said keys; when the portable telephone set is used in a mode wherein no sound is generated from said portable telephone set, if the key input discrimination means discriminates that the key inputting operation is valid, then at least one of a first vibration pattern and a first color variation pattern is generated, and if the key input discrimination means discriminates that the key inputting operation is invalid, then at least one of a second vibration pattern and a second color variation pattern is generated, to provide various methods of alerting the user of a certain condition (i.e. incoming call or valid/invalid key selection) of the mobile phone regardless of whether the phone is in an audible or silent mode.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wesley L. Kim whose telephone number is 571-272-7867. The examiner can normally be reached on Monday-Friday 9:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

WLK



GEORGE ENG
SUPERVISORY PATENT EXAMINER